

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**Docket Number (Optional)  
2428

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)]

on \_\_\_\_\_

Signature \_\_\_\_\_

Typed or printed

name \_\_\_\_\_

Application Number  
10/753,941

Filed  
January 7, 2004

First Named Inventor  
Dae-Sik Oh

Art Unit  
2618

Examiner  
Bobbak Safaipoor

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor.

/Lawrence H. Aaronson/

Signature

☐ assignee of record of the entire interest.

See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.  
(Form PTO/SB/96)

Lawrence H. Aaronson

Typed or printed name

☒ attorney or agent of record.

Registration number 35,818

312 913-2141

Telephone number

☐ attorney or agent acting under 37 CFR 1.34.

January 14, 2008

Date

Registration number if acting under 37 CFR 1.34 \_\_\_\_\_

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below\*.

☐ \*Total of \_\_\_\_\_ forms are submitted.

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
(Docket No. 2428)**

<b>In re Application of:</b>	)	
<b>Dae-Sik Oh</b>	)	
	)	<b>Group Art Unit 2618</b>
<b>Serial No. 10/753,941</b>	)	
	)	<b>Examiner: Bobbak Safaipoor</b>
<b>Filed: January 7, 2004</b>	)	
	)	<b>Confirmation No. 5516</b>
<b>For: RADIO FREQUENCY REPEATER</b>	)	
<b>WITH AUTOMATED</b>	)	
<b>BLOCK/CHANNEL SELECTION</b>	)	

Mail Stop AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

**REASONS FOR REVIEW OF FINAL REJECTION**

Applicant requests review of the final rejection mailed September 7, 2007, because the Examiner has not set forth a sufficient basis for rejecting any of the claims.

In the final office action, the Examiner maintained rejections of claims 1-12, 14-16, 18-21, and 23-30 under 35 U.S.C. § 103(a) as being allegedly obvious over U.S. Patent Application Pub. No. 2001/0031621 (Schmutz) in view of U.S. Patent No. 5,987,304 (Latt), and the Examiner maintained rejections of claims 13, 17, and 22 under 35 U.S.C. § 103(a) as being allegedly obvious over Schmutz in view of Latt in view of U.S. Patent No. 6,463,298 (Sorenson).

Applicant submits that these rejections are clearly erroneous and should be withdrawn, because the invention recited in the independent claims does not logically or reasonably follow from the teachings of Schmutz and Latt and therefore would not have been obvious to one of ordinary skill in the art at the time the present invention was made.

Applicant respectfully requests the panel to review the remarks set forth in Applicant's response to the final office action, where Applicant explained clearly why the Examiner's

proposed combination of Schmutz and Latt would not logically result in the claimed invention and Applicant further explained how modifying Schmutz in an effort to achieve the claimed invention would change the principal of operation of Schmutz and would thereby preclude *prima facie* obviousness under M.P.E.P. § 2143.01. Applicant submits that the Examiner clearly erred for the reasons set forth in the Response After Final. Further, a close review of the Examiner's condensed remarks in the Advisory Action shows that the Examiner's remarks do not overcome the points set forth in Applicant's Response After Final.

As noted in the Response After Final, the independent claims recite the invention as a wireless repeater and method, where the repeater determines one or more attributes of a wireless signal received from a BTS, such as a frequency of the signal and/or information indicating a wireless provider, and, by comparison the one or more attributes with a reference list, the repeater selects one or more operating frequencies and filters out other frequencies. This arrangement is not suggested by Schmutz and Latt, and the arrangement does not follow reasonably from the disclosures of Schmutz and Latt. Consequently, the Examiner has not established *prima facie* obviousness of the independent claims over Schmutz in view of Latt, and the claims should be therefore be allowed.

Schmutz teaches a system in which a BTS transmits to a wireless repeater a list of frequencies for the wireless repeater to use, and the repeater uses those frequencies. That arrangement is in stark contrast to the invention recited in Applicant's claims, since Schmutz does not involve selecting an active set of one or more frequency bandwidths based on a comparison of one or more attributes of the received wireless signal with a reference list that includes one or more preferred frequency bandwidths.

In Schmutz, the repeater functions to receive, amplify, and transmit signals at predefined frequencies, in accordance with a set list of operating frequencies provided in advance to the repeater. As such, the operative "filter" in Schmutz is defined in a fixed manner, pursuant to the

predefined transmission list, with the repeater operating on just the frequencies specified in the predefined transmission list. Even if we interpret that predefined transmission list to be akin to the "reference list" in Applicant's claims, however, Schmutz is still substantially different than Applicant's claimed invention and does not reasonably lead to Applicant's claimed invention.

The repeater of Applicant's claims selects an active set of one or more frequencies, and thus defines other frequencies (i.e., those that are *not* in the active set) to filter out at a reception stage, based on a comparison of received signal attributes with a predefined list of preferred operating frequencies. Thus, even giving Applicant's claims their broadest reasonable interpretation, the claims clearly require using a comparison of received signal attributes with a predefined list of preferred operating frequencies as a way to select the active set of frequencies for the repeater's receive-filter, such that the repeater will filter out other frequencies not in the selected active set. As such, contrary to Schmutz's use of a fixedly defined frequency filter (pursuant to a predefined transmission list), Applicant's claims clearly involve using attributes of a received signal in order to *dynamically* establish which frequencies to filter out at the receive-stage.

In rejecting the claims, the Examiner relied on Schmutz's teachings of (i) the repeater receiving a transmission list that defines operating frequencies for the repeater, and (ii) the repeater filtering out unwanted frequencies in accordance with the transmission list. However, the Examiner's proposal to use Schmutz's predefined transmission list of frequencies for comparison with determined attributes of a received wireless signal in order to determine one or more frequencies at which the repeater should operate would not make sense -- since the received list of frequencies itself already specifies the frequencies at which the repeater should operate.

Phrased another way, the Examiner's proposed modification of Schmutz would change the basic principle of operation of Schmutz and would thus preclude *prima facie* obviousness

under M.P.E.P. § 2143.01(VI). In particular, Schmutz teaches that the repeater operates in a fixed manner at frequencies defined by a transmission list. Modifying Schmutz to achieve the invention recited in Applicant's claims would substantially change that basic principle of operation, since, in accordance with Applicant's claims, the result of the modification would be to use a comparison of received signal attributes with a reference list as a basis to select an active set of one or more frequency bandwidths and to then filter out at a reception stage signals that are not within the selected active set rather than having a fixed reception filter.

In the "Response to Arguments" section of the final office action, the Examiner argued that (i) Schmutz teaches having a repeater detect one or more attributes of a wireless signal and (ii) Schmutz teaches storing a reference list and comparing the attributes with the reference list. More particularly, the Examiner argued that the reference list is the predefined transmission list defining the operating frequencies of the repeater, and the Examiner argued that the detecting of the attributes of the received wireless signal involves converting the received signal's frequency, modulating the signal, and scanning frequency channels. Further, the Examiner argued that the reference list is used "for comparison" to the received signal attributes, apparently because, by definition, the repeater operates at the frequencies designated by the predefined transmission list.

It seems that the Examiner thus considered the "comparison" to be met by Schmutz's teaching of a repeater applying a filter that is fixedly defined to operate at just the frequencies specified in a predefined transmission list. However, this reading of Schmutz would disregard the language of Applicant's claims as a whole, where the claims recite that the comparison is used as a basis to select the active set in the first place, and that the repeater filters out signals falling outside that selected active set. Schmutz does not teach or reasonably suggest this.

Still further, the Examiner has admitted that Schmutz fails to teach the independent claim function of comparing the one or more determined attributes of the received wireless signal with a reference list and, based on the comparison, selecting operating frequencies and so forth as

recited in the claims. In an effort to overcome this deficiency, the Examiner then turned to Latt's teaching of a band pass filter passing an entire incoming signal that coincides with the filter band (at column 3, lines 25-30) and Latt's teaching of varying the overlap pass band of the repeater (at column 3, lines 32-52). However, these teachings do not make up for the admitted deficiency of Schmutz, as these teachings similarly do not involve comparing one or more determined attributes of a received wireless signal with a reference list and setting and applying one or more frequency bandwidths of the repeater in accordance with the comparison.

Schmutz and Latt both describe remotely controlling or configuring a wireless repeater. However, neither reference, nor the combination of references, involves the innovative features of Applicant's claims. Furthermore, Applicant's claimed invention does not follow logically from the teachings of Schmutz and Latt. And still further, as discussed above, it would be illogical to modify the disclosure of Schmutz in the manner apparently contemplated by the Examiner, since doing so would change the basic principle of operation of the repeater in Schmutz. Consequently, the Examiner has not established *prima facie* obviousness of the independent claims over Schmutz and Latt.

For these reasons, Applicant submits that the Examiner has clearly erred in rejecting the claims, and thus Applicant respectfully requests the panel to withdraw the rejections and direct that a Notice of Allowance be mailed.

Respectfully submitted,

**MCDONNELL BOEHNEN  
HULBERT & BERGHOFF LLP**

Date: January 14, 2008

By: /Lawrence H. Aaronson/  
Lawrence H. Aaronson  
Reg. No. 35,818